The Global Precedence Effect and Differences in Political Temperament.

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1. Background

Global/Local Paradigm
- Perception proceeds from an overall organizing of a visual scene to a more detailed breakdown. Global Precedence Effect (GPE): Individuals are faster and more accurate when reporting the Global information compared to the Local information (Navon, 1977).
- Participants are asked to respond to either the large letter (Global level) or small letters (Local level) by making one of two possible responses. In the neutral trials there is no response conflict because O is not a possible response only H or S.

Differences in GPE Score Based on Religious Affiliation
- GPE Score = Locally Directed Incongruent Trial RT – Globally Directed Incongruent Trial RT. Positive number indicates global precedence over local precedence. Catholicism, Judaism showed a larger GPE Score and people of Individualistic (Calvinism) religions showed a smaller GPE Score (Colzato et al., 2010).

Individual Differences Based on Politics
- Gaze Cuing Effect: In a gaze cuing task, participants were faster to orient to the target on valid cued trials compared to invalid cued trials. The effect was much larger for liberals relative to conservatives who showed no gaze cuing effect at all (Dodd, Hibbing, & Smith, 2011).

Connection Between Religions and Political Groups
- Social interdependence associated with a more holistic processing style (Witkin et al., 1954).
- Collectivist = Liberal ideals & Individualistic = Conservative ideals

2. Experiment 1 Design

- 4 Blocks responding to the global letter and 4 blocks responding to the local letters.
- 8 of each trial type presented randomly at one of two locations.

Political Temperament Measures
- Wilson-Patterson
- “Society Works Best”
- 2 Self-Report Measures
- Each score converted to z-scores and averaged across the 4 measures.
- Liberals = z-score less than or equal to -0.5, Moderates = z-score from -0.5 to 0.5, Conservatives = z-score greater than or equal to 0.5

3. Hypotheses & Experiment 1 Results

Hypothesized Reaction Time Results
- Liberals > Moderates > Conservatives
- Mean, SD, Range, Available Range

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<thead>
<tr>
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<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>Available Range</th>
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</thead>
<tbody>
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<td>13.50</td>
<td>3.27</td>
<td>4 to 23</td>
<td>0 to 28</td>
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<td>1.55</td>
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</tr>
</tbody>
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Global Precedence Score Based on Political Affiliation
- No differences between groups, F(2,182) = 16, p < 0.05

4. Motivation for Experiment 2

- Political cognitive styles may be variable and affected by recent stimuli (e.g., primes) rather than being long standing and stable.
- Conservatives have been shown to be more structured and persistent in their judgments and approaches to decision-making (Jost et al., 2003). Therefore they may be less affected by primes.
- Implementing a central presentation should elicit no GPE (Lamb & Robertson, 1988).

5. Experiment 2 Design

- 4 Blocks requiring a response to the global letter and 4 blocks requiring a response to the local letters in the stimulus.
- 8 congruent, 8 incongruent, and 8 neutral trials presented centrally in each block.
- Participant primed on each trial with a picture of President Obama or former Governor Mitt Romney.
- Political Temperament Measures

6. Hypotheses & Experiment 2 Results

Hypothesized Reaction Time Results
- Expected larger effect of prime for liberals than conservatives.
- Conservatives GPE was expected to be close to zero.
- With central presentation, and no prime effect, results should show no GPE or a local precedence effect (Lamb & Robertson, 1988).

<table>
<thead>
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<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>Available Range</th>
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<tbody>
<tr>
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Global Precedence Score Based on Political Affiliation & Type of Prime
- No Interaction of Prime & Group, F(2,96) = 1.48, p = 0.23

7. General Discussion

- Conservatives primed with Romney responded faster to the global letters than when they were primed with Obama.
- The was no difference between the effects of the two primes for moderates.
- Liberals also showed no difference in the effects of the two primes.
- Political primes can be effective in modifying the GPE, however, this effect appears to depend on political group.

References


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